

CLAIMS

We claim:

- 1 1. A pipe repair tool, comprising:
 - 2 a generally cylindrical main body having a top surface and a
 - 3 bottom surface;
 - 4 a generally cylindrical, compressible alignment portion
 - 5 having a bottom surface disposed against the top surface of said
 - 6 main body and a top surface;
 - 7 a rigid compression plate having a bottom surface disposed
 - 8 against the top surface of said alignment portion and a top
 - 9 surface;
 - 10 an elongate rod extending through the center of the main
 - 11 body, the alignment portion and the compression plate, the rod
 - 12 having a top end that extends through the top surface of the
 - 13 compression plate and a bottom end that extends through the
 - 14 bottom surface of the main body;
 - 15 a fastener secured to the top end of the said rod; and
 - 16 a rotatable fastener secured to the bottom end of said rod;
 - 17 whereby the pipe repair tool is inserted into an open end of
 - 18 a cut pipe so that the top surface of said main body aligns with
 - 19 the open end of the cut pipe, and the alignment portion is
 - 20 compressed by rotating the rotatable fastener to secure the pipe
 - 21 repair tool inside of the cut pipe.

1 2. The pipe repair tool according to claim 1, further
2 comprising a flat washer disposed along the bottom surface of the
3 main body.

1 3. The pipe repair tool according to claim 1, wherein said
2 rotatable fastener comprises a wing nut.

1 4. The pipe repair tool according to claim 1, wherein said
2 main body is tapered so that the bottom surface of the main body
3 comprises a smaller circumference than the top surface of the
4 main body.

1 5. The pipe repair tool according to claim 1, wherein said
2 alignment portion comprises a rubber bushing.

1 6. The pipe repair tool according to claim 1, wherein said
2 main body is made from a plastic material.

1 7. The pipe repair tool according to claim 6, wherein the
2 plastic material comprises ultra high molecular weight
3 polyethylene.

1 8. A pipe repair assembly, comprising:
2 a pipe repair tool comprising:
3 a generally cylindrical main body having a top surface
4 and a bottom surface;
5 a generally cylindrical, compressible alignment portion
6 having a bottom surface disposed against the top surface of said
7 main body and a top surface;
8 a rigid compression plate having a bottom surface
9 disposed against the top surface of said alignment portion and a
10 top surface;
11 an elongate rod extending through the center of the
12 main body, the alignment portion and the compression plate, the
13 rod having a top end that extends though the top surface of the
14 compression plate and a bottom end that extends through the
15 bottom surface of the main body;
16 a fastener secured to the top end of the said rod; and
17 a rotatable fastener secured to the bottom end of said
18 rod; and
19 a generally cylindrical pipe coupling having an open top end
20 and an open bottom end;
21 whereby the pipe repair tool allows the pipe coupling to
22 connect two cut sections of pipe from a damaged pipeline without
23 having to bevel the cut ends of the pipe sections.

1 9. The pipe repair assembly according to claim 8, further
2 comprising a top gasket disposed in the open top end of said pipe
3 coupling.

4 10. The pipe repair assembly according to claim 8, further
5 comprising a bottom gasket disposed in the bottom end of said
6 pipe coupling.

1 11. The pipe repair assembly according to claim 8, further
2 comprising a flat washer disposed along the bottom surface of the
3 main body.

1 12. The pipe repair assembly according to claim 8, wherein
2 said rotatable fastener comprises a wing nut.

1 13. The pipe repair assembly according to claim 8, wherein
2 said main body is tapered so that the bottom surface of the main
3 body comprises a smaller circumference than the top surface of
4 the main body.

1 14. The pipe repair assembly according to claim 8, wherein
2 said alignment portion comprises a rubber bushing.

1 15. The pipe repair assembly according to claim 8, wherein
2 said main body is made from a plastic material.

1 16. The pipe repair assembly according to claim 15, wherein
2 the plastic material comprises ultra high molecular weight
3 polyethylene.